

**Amendment and Response**

Applicant: Mark A. Smith et al.

Serial No.: 09/839,385

Filed: April 20, 2001

Docket No.: 10001074-1

Title: INK CONTAINER CONFIGURED TO ESTABLISH RELIABLE FLUIDIC CONNECTION TO A RECEIVING STATION

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**REMARKS**

This Amendment is responsive to the Office Action mailed March 17, 2004, in which claims 1-8, 10-20, 22 and 23 were rejected and claims 21 and 24 were objected to. With this Response, claims 1, 7, 10, 16 and 24 have been amended and claim 21 has been canceled. Claims 1-8, 10-20 and 22-24 remain pending in the application and are presented for reconsideration and allowance.

**Claim Objections**

Claim 21 was objected to because of an informality. Specifically, the claim should be directed to a method. With this Amendment, the subject matter of claim 21 has been incorporated into independent claim 7, and claim 21 canceled from the application. Accordingly, withdrawal of the objection to claim 21 is respectfully requested.

**Claim Rejections under 35 U.S.C. § 102**

Claim 22 and 23 stand rejected under 35 U.S.C. §102(e) as being anticipated by Shinada et al. (U.S. Patent No. 6,502,917).

Regarding claim 22, Shinada et al. is said to disclose a replaceable ink container 40 for providing ink to an inkjet printing system (Fig. 1). The inkjet printing system is said to have a receiving station 4, the receiving station having a plurality of corresponding electrical contacts 29, a fluid interconnect 6 and a sealing structure (support structure at the bottom of 6) surrounding the fluid interconnect (Fig. 3). The replaceable ink container is said to comprise: a reservoir 41 for retaining ink having particles suspended therein (impurities of ink), the reservoir having a fluid outlet 44 configured for allowing passage of the fluid interconnect into the reservoir (Fig. 3); a sealing surface (bottom surface of 44 engaging support structure of 6, Fig. 3) surrounding the fluid outlet for engaging the sealing structure (Fig. 3), the sealing surface configured so that ink and particles suspended therein wet the sealing surface (upon removal of 6, ink leaks to bottom surface of 44); and a plurality of electrical contacts (60-1, 60-2) disposed on the reservoir and electrically connected to an electrical storage device (61), the plurality of electrical contacts configured for connection to

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the plurality of corresponding electrical contacts disposed in the receiving station (Figs. 3, 7). The Examiner further details how claim 23 is anticipated by Shinada et al.

The Examiner's rejection of claims 22 and 23 in view of Shinada et al. is respectfully traversed. Claim 22 sets forth, in part, **a sealing surface surrounding the fluid outlet for engaging the sealing structure, the sealing surface configured so that ink and particles suspended therein wet the sealing surface**. Contrary to the Examiner's characterization, Shinada et al. does not anticipate such a structure. As characterized by the Examiner, the "sealing structure" of Shinada et al. is the "support structure at the bottom of 6" that surrounds the fluid interconnect 6. The Examiner further states that upon removal of fluid interconnect 6, ink leaks to the bottom surface of fluid outlet 44. However, as clearly seen in Figure 3 of Shinada et al., the "support structure" of the receiving station does not contact or otherwise engage the ink container anywhere near fluid outlet 44. That is, the "support structure" of the receiving station does not make contact with any portion of container 41 that may be wetted with ink that has leaked from the reservoir. Specifically, Figure 3 of Shinada et al. clearly shows that surface 44 of the ink container does not make contact with any portion of the receiving station 4. Thus, even if surface 44 is wetted with ink, that surface does not engage any sealing structure. Accordingly, Shinada et al. cannot and does not anticipate the claimed **sealing surface surrounding the fluid outlet for engaging the sealing structure, the sealing surface configured so that ink and particles suspended therein wet the sealing surface**. For at least this reason, Shinada et al. fails to anticipate independent claim 22 under 35 U.S.C. §102(e), and withdrawal of the rejection is respectfully requested.

Claim 23 depends from claim 22, which is allowable for the reasons set forth above. Accordingly, claim 23 is also in allowable condition, and withdrawal of the rejection under 35 U.S.C. §102(e) is respectfully requested.

**Claim Rejections under 35 U.S.C. § 103**

Claims 1-8 and 10-20 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Tomikawa et al. (U.S. Patent No. 6,039,441) in view of Aono et al. (U.S. Patent No. 6,471,321). In response to Applicant's arguments filed February 26, 2004, the Examiner has

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taken the position that Tomikawa discloses a reservoir 2 defining a fluid outlet 11 and a sealing surface 14 configured for engaging the sealing structure of the receiving station (referencing Fig. 1b), wherein the fluid outlet 11 is configured to allow passage of the fluid inlet into the reservoir (stating that fluid outlet 11 receives inlet of 23).

Independent claim 1 has been amended to specify that the fluid outlet of the replaceable ink container is configured to allow passage of the receiving station fluid inlet into the ink container reservoir and prevent passage of the sealing structure into the reservoir. Tomikawa et al. does not show, teach or suggest a replaceable ink container comprising a reservoir defining a fluid outlet and a sealing surface configured for engaging the sealing structure of a receiving station, **wherein the fluid outlet is configured to allow passage of the fluid inlet into the reservoir and prevent passage of the sealing structure into the reservoir.** In Figures 1a and 1b of Tomikawa et al. it can be clearly seen that ink tank 1 includes an ink chamber 2 having a joint port 11 which is connectible to the elastic jointing member 22 of holding member 27 to deliver ink from the ink chamber 2 to the recording head 21. The elastic jointing member 22 includes an umbrella shaped portion that engages the depressed area 14 surrounding joint port 11 to form a hermetic seal therebetween. **Because the jointing member 22 acts as both the fluid inlet and the sealing structure, it is not possible that Tomikawa et al. discloses or suggest that the joint port 11 is configured to allow passage of the jointing member 22 into the reservoir and also prevent passage of the jointing member 22 into the reservoir.**

Aono et al. does not remedy the deficiencies of Tomikawa et al. Aono et al. is directed to an ink jet recording head capable of realizing substantially constant discharge characteristics for inks of different types (such as dye inks and particle inks). There is no support in Aono et al. for a replaceable ink container comprising a reservoir defining a fluid outlet and a sealing surface configured for engaging the sealing structure of a receiving station, wherein the fluid outlet is configured to allow passage of the fluid inlet into the reservoir and prevent passage of the sealing structure into the reservoir.

For the reasons set forth above, Applicants believe the combination of Tomikawa et al. and Aono et al. does not disclose, teach, suggest or make obvious, either implicitly or explicitly, what is claimed by Applicants in amended independent claim 1. Applicants

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therefore believe that the rejection of independent claim 1 under 35 U.S.C. § 103(a) has been overcome and should be withdrawn. Such action is respectfully requested.

Independent claims 10 and 16 have been amended to include language similar to that referred to above in connection with amended independent claim 1. Thus, the remarks above directed to amended independent claim 1 are equally applicable to amended independent claims 10 and 16. Therefore, for the reasons set forth above, Applicants believe the combination of Tomikawa et al. and Aono et al. does not disclose, teach, suggest or make obvious, either explicitly or implicitly, what is claimed by Applicants in amended independent claims 10 and 16. For the reasons provided, Applicants believe that the rejection of independent claims 10 and 16 under 35 U.S.C. § 103(a) have been overcome and should be withdrawn. Such action is respectfully requested.

Dependent claims 2-6, 11-15 and 17-20 are directly or indirectly dependent upon independent claims 1, 10, and 16. As discussed above, it is believed that independent claims 1, 10, and 16 as amended are now in condition for allowance. Therefore, reconsideration and allowance of dependent claims 2-6, 11-15 and 17-20 is also requested.

With regard to independent claim 7, as noted above in the discussion related to the objection to claim 21, the subject matter of dependent claim 21 has been incorporated into independent claim 7, and claim 21 canceled from the application. Claim 21 was indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, amended independent claim 7 is believed in allowable condition. Withdrawal of the rejection of claim 7 under 35 U.S.C. § 103(a) and allowance of the claim is respectfully requested.

Claim 8 is directly dependent upon independent claim 7. As discussed above, it is believed that independent claim 7 as amended is now in condition for allowance. Therefore, reconsideration and allowance of dependent claim 8 is also requested.

**Allowable Subject Matter**

Claims 21 and 24 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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As set forth above, the subject matter of claim 21 has been incorporated into independent claim 7, placing claim 7 in allowable condition.

Claim 24 has been rewritten in independent form including all of the limitations of the base claim and any intervening claims, and is therefore believed to be in allowable condition.

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**CONCLUSION**

In light of the above, Applicant believes independent claims 1, 7, 10, 16, 22 and 24, and the claims depending therefrom, are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to either Matthew B. McNutt, Esq. at Telephone No. (512) 231-0531, Facsimile No. (612) 573-2005 or Thomas A. Jolly at Telephone No. (541) 715-7331, Facsimile No. (541) 715-8581. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 21<sup>st</sup> day of May, 2004.

By Matthew B. McNutt  
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